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THE QUADRANT APPROACH TO EFFECTIVE 1990s PROCUREMENT AND SUPPLY

No competitive firm in the 1990s can afford a purchasing process that treats all products and services the same. The traditional purchasing paradigm, with its reliance on such tactics and measures as three bids and purchase price variance, threatens to keep the firm from gaining competitive advantage in today's supply marketplace. As many firms have recently discovered, segmenting the purchase process into a quadrant of different strategies, tactics, and managerial approaches goes far in linking effective procurement and supply to the firm's overall corporate and product needs and competitive efforts.

In our visits to firms, it never ceases to amaze us how most purchasing departments still treat a critical microchip in the firm's key product much the same way as a paperclip purchase. Though EDI, systems contracts, and purchasing tactics have changed over the years, the performance metrics are being applied that have been in use since the emergence of the management accounting and auditing fields back in the 1920s. This process no longer serves today's competitive firms!

The Quadrant Approach

The quadrant approach to procurement and supply identifies just how important each product or service is to the firm and points to effective acquisition management for each one. It recognizes that product/service groups often need differing

* supply strategies,
* tactics,
* cost measurement, and
* management skills.

There are many benefits to splitting goods and services into quadrants. One, it points to distinct procurement approaches appropriate for different items. Two, the quadrants help align acquired items into groupings for effective management in synch with general management views of them. Three, it helps purchasing managers more effectively apply scarce personnel resources to each area.

Making the Split

The quadrant approach distinguishes the firm's goods and services according to 1) their value and profit potential, and 2) the risk they present to both procurement and the firm. This is a departure from the traditional way of looking only at the highest dollar volume items and often ignoring the rest. Instead, the quadrant approach examines all items for their value and risk as shown in Figure 1.

Profit potential and value are those individual product and service features that can be traced to their use by the firm and ultimate customers, the profit they bring in the downstream channel, and their importance in maintaining a competitive advantage for the firm. **Risk** represents the chance of product failure, non-acceptance in the marketplace, faulty design and internal use in the firm, delivery failures, and source non-availability.

Those items represented with low value and low risk are referred to as **generics**. These are the routine items that often do not enter into the final salable products of the firm. Their value is low and the harm through costs or disruption to the firm due to supply failures is also low. Generally, these are standardized items in plentiful supply from a wide variety of vendors. Widely available MRO items, office supplies, and many administrative goods are examples of generics. See Figure 2 for general examples of products and services in the quadrants.

Commodities are the basic items that represent high value but low risk to the firm. Basic production goods, non-unique packaging materials,coatings, and most fasteners are examples of commodities. These items are also in plentiful supply and often have little uniqueness. These are basic items required to make the firm's saleable output thus making their value high. Because there is little difference among the competing brands of these items, suppliers often attempt to differentiate their offerings with non-price attributes such as customer service.

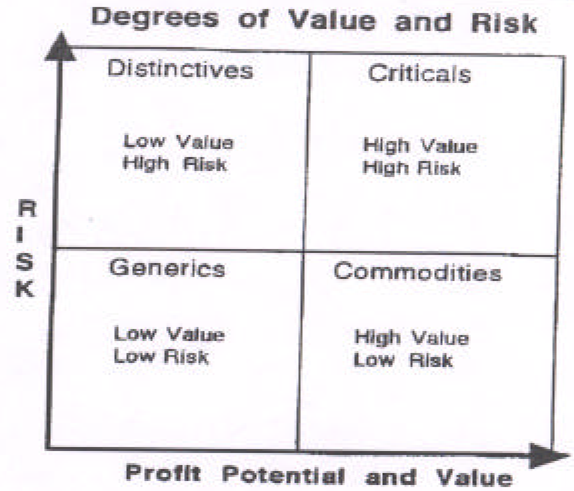

Figure 1

Distinctives are those low value items that pose danger through high risk to the firm and purchasing. Items that have been over-engineered or tightly spec'ed are good examples. Examples are spare parts that are only available from one or a few suppliers with long lead times or difficult supply in other ways. The risk is high yet the ultimate customer either does not care for the uniqueness nor is aware of them.

General Examples

RISK

Distinctives	Criticals
Very unique and "over-specified" MRO items and capital equipment items	Components of company's products that make a competitive advantage for it in marketplace
Generics	**Commodities**
Office supplies General MRO items Administrative goods and services	Basic production materials Some packaging

Profit Potential and Value

Figure 2

Criticals are those goods and services that make the firm's saleable output have a competitive advantage in the marketplace. These are both high risk and high value. They might be a unique microchip, a component that permits higher operating speed of the product, a longer life, a lower cost-in-use, or a safer or a more environmentally acceptable operation by ultimate users. In any case, their value is measured in terms of the ultimate customer and whatever is of value to them.

Each of these quadrants has a different competitive and operating impact upon the firm. In contrast to traditional purchasing approaches that typically focus upon major dollar volume or unit cost items, the quadrants capture any item that poses risk to the firm and affects its competitiveness in the marketplace.

Quadrant Costs

The old saying "price is only a small part of the total cost of an item" aptly applies in the quadrant approach to acquisition. Figure 3 presents the major costs that exist in addition to just price. Commodities are still measured by price, but today this must also include freight, payment terms, delivery expenses, and inventory costs. Today's transportation opportunities require the purchase *and* freight to be treated as a single decision. Payment terms affect the firm's cash flow and cost-of-capital. Long a matter for financial personnel, supplier and carrier payment terms likewise must be a part of the buyer's decision process today. Inventory costs arise from the lot size and timing of inbound deliveries. These are increasingly being factored into the overall cost equation of item and supplier evaluation and selection.

Key Costs

RISK

Distinctives	Criticals
Downtime Poor plant utilization	Cost of performance in actual user's hands
Generics	**Commodities**
Administrative expenses Acquisition process cost for entire firm	Price Freight Delivery Inventories

Profit Potential and Value

Figure 3

Generics pose yet another kind of key cost. In addition to price, the cost of the acquisition process is important here. This process includes all times and steps required by anyone in the firm to detect, requisition, order, receive, make-ready, and pay for an item or service. Office supplies are an example. Our studies show that the acquisition process by everyone in the firm often exceeds the price of the item. This can easily be seen in the example of one telecommunications firm that found its cost of invoice verification, matching, and check payment is about $55 US. Many of the items they were buying this way were priced less than $10. The cost of generics can be estimated through system-wide time and motion analysis.

Distinctives represent a cost of equipment downtime or plant utilization costs when the needed items are not available. In another context, production line schedule changes might result when a needed material or part is not available. The point is that the benefit derived from using distinctives often shrinks in comparison to the risk of not having them available. This is a cost not often measured, yet it is the discussion of consequential damages in price negotiations. These costs are real, and they can be estimated through inter-departmental analysis.

Criticals are measured in terms of the ultimate customer or user. They are the critical success factors of the product or service in the marketplace. These are the reason the customer buys from the firm and not a competitor. Key metrics are cost-in-use or avoidance of cost.

Quadrant Strategies

The quadrant approach points toward differing procurement strategies. Figure 4 presents a summary of these strategic approaches.

The appropriate *attention given to generics should be upon the acquisition process.* This is measured in terms of persons' times in the detection-to-use-to-disposition cycle. These are low value activities that pose little contribution to the firm. They should be minimized, eliminated, or outsourced. Many integrated supplier relationships, EDI, and vendor stockless systems are examples. The key is to reduce the time spent by everyone in the firm in the acquisition, make-ready, and payment of these items.

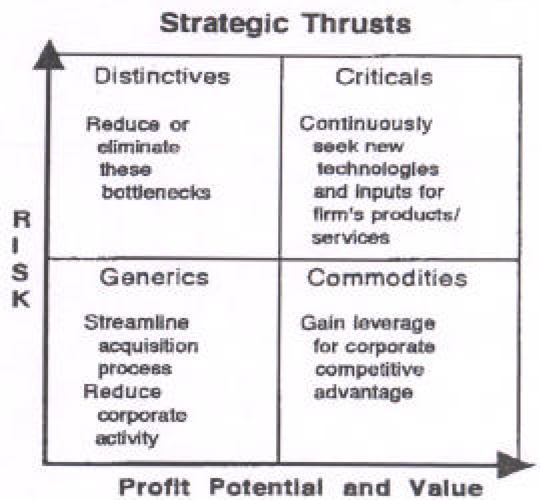

Figure 4

Commodities are managed traditionally. Price leverage through volume agreements, just-in-time approaches, and company-wide coordination efforts are appropriate here.

Distinctives should be examined for elimination.. Simultaneous engineering and early procurement involvement can help reduce these items before they are spec'd-in. For those already in use, value analysis and standardization programs go far in eliminating or reducing the need for them. The ideal is to make changes that shift them to either generics (lower risk alternatives), commodities (lower risk and higher value options), or made into criticals that have marketplace appeal and advantage.

Criticals should be enhanced in any way possible. This would be through use of new technologies, simplification, feature enhancement, or any other cost savings and/or value added modification. The difference between the traditional approach and the management of criticals is that the former focuses upon cost reduction or cost avoidance whereby criticals seek more contributive value added approaches.

Neither purchasing, nor the firm, should be focused only upon cost reduction with these goods and services. Because marketplace effectiveness is the key, and not necessarily efficiency only, attention should also include items that might actually raise price or cost if they make business sense in selling in the marketplace. The feature-laden growth of the compact disk market is an example. So, too, are avionics, computer equipment, and middle to upper scale automobiles.

The point is that not one single strategic approach is appropriate throughout the range of products/services. Unlike the traditional purchasing paradigm that treats most things the same, the quadrant approach delineates them into differing efficient and effective stategies.

Procurement Tactics

The quadrant approach follows through with down-to-earth buying tactics. Figure 5 presents a summary of these.

Generics call for greater use of suppliers both on and off the property. This can range from them performing routine tasks that release personnel in the firm to other tasks to outright use of integrated suppliers and outsourcing. In setting up an EDI linkage this requires an internally oriented person who is competent in setting up and maintaining system linkages among company personnel and between the firm and suppliers. In outsource settings it requires a person who can marshall company influences together for developing an appropriate supplier relationship that includes many services and products rather than simply buying.

Commodities are still bought with price in mind, and this entails volume agreements with a mix of spot buying where needed. Little or no loyalty is called for in this quadrant, since traditional purchasing tactics are effective. In terms of management skills, the traditional desk-pounding price "pit-bull" can still apply his or her talents in this realm. Cost reductions and budget focus are still supreme in this quadrant.

Distinctives require programs that lead

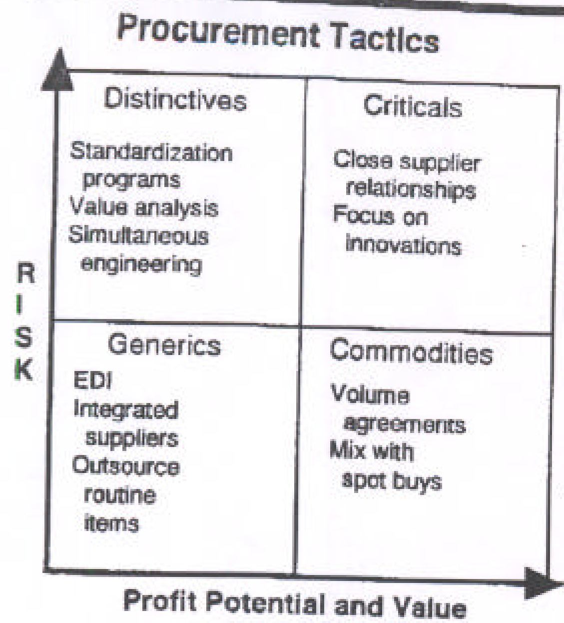

Figure 5

to variety control, fewer stockkeeping units, standardization, value analysis, and team processes both before and during the life of an asset. The key skills required here are those of technical expertise and the ability to gain consensus across departmental lines. This often calls for an engineer with strong diplomatic skills.

Criticals involve seeking competitive access to technologies and services of suppliers. This may mean use of joint ventures, partnerships, and other close supplier relationships. Price is not the motive for relationships in this quadrant. But cost sharing discussions result in selecting which firm, the supplier's or the buyer's, would best perform a certain task and which one will own an item in the supply chain. The creative focus of a critical is upon product innovation and enhancement. This is in line with the current competitive thrust for corporate strategic intent. A person who is comfortable with unstructured projects is needed here. This also requires a person who can build, lead, or otherwise participate in teams to gain consensus both within the firm and across its boundaries with suppliers. Many firms have taken the first step here with commodity teams. The results are often a high profile visibility for procurement personnel within the firm.

Purchasing is No Longer "Plain Vanilla"

Variations of the quadrant approach are successfully being applied in firms across many industries. It is an approach that breaks with the traditions of our long standing procurement processes, strategies, tasks, supplier evaluation and use, and performance evaluation metrics.

The gain for taking the step toward the quadrant approach is that procurement thinking, strategies, and actions then coincide with those of upper management in steering the firm to succeed in today's competitive world.

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